



Water Cooled Q-Switched Narrow Linewidth Ti:Sapphire Tunable Laser

TWQN Series

Data Sheet

Overview

The TWQN series is a water-cooled wavelength tunable Q-switched Ti: sapphire laser with tuning range from 770nm to 840nm and can deliver up to 400 mW output power. The laser features narrow linewidth, high repetition rate, and short pulse duration. The laser series is widely used in marking, carving, measurement, scientific research, and many other applications.

Features

- 770-840nm tunable wavelength
- Q-switched operating mode
- Optical output power up to 400mW
- Narrow spectral linewidth <40 pm
- Ultra-compact design

Applications

- Measurement
- Marking
- Carving
- Scientific research

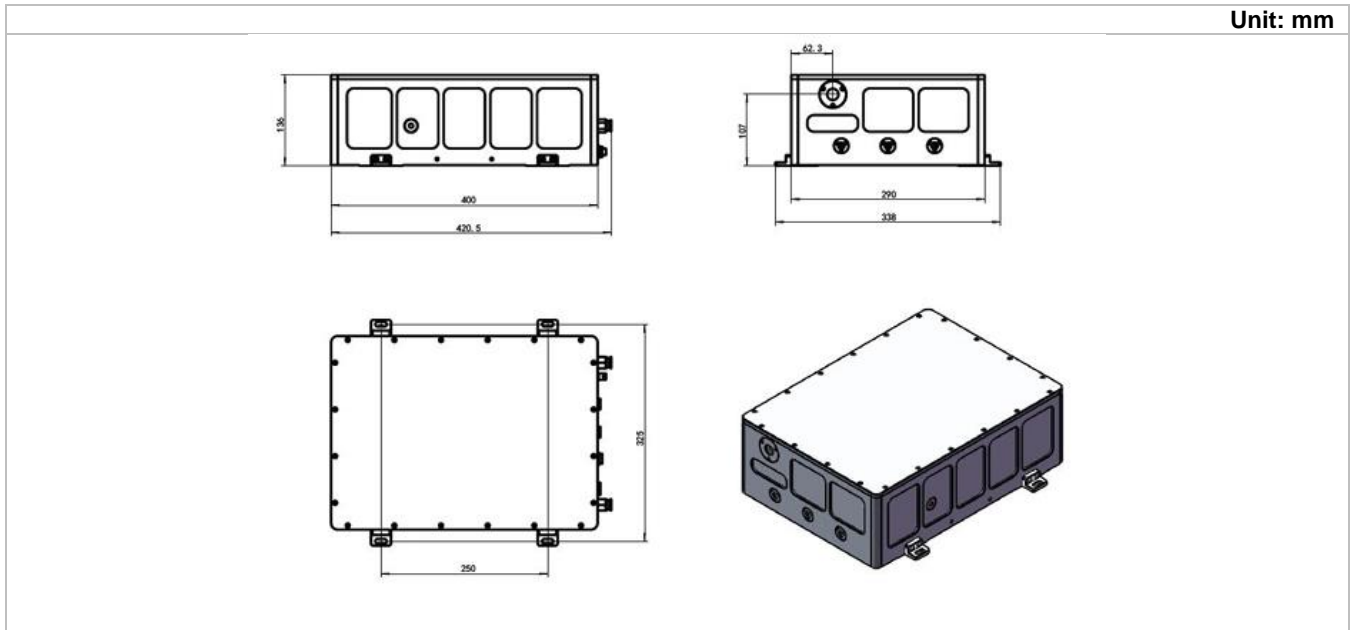
770-840 nm Specifications

Parameter	TWQN7784
Tunable wavelength range	770-840 nm
Operating mode	Acousto-Optic Q-switched
Linewidth	<40 pm
Average power	1-400@50kHz
Pulse duration	<40ns @50kHz&400mW
Repetition rate	10-50 kHz
Single pulse energy	8@50kHz
Peak power	0.32kW@50kHz
Ave power stability (rms, over 4 hours)	<3%, <5%
Beam diameter at aperture (1/e ²)	~2 mm
Beam divergence, full angle	<3.5 mrad
Warm-up time	<10 min
Operating temperature	15-35°C
Cooled method	Water Cooled
Power supply	DC 12V
Expected lifetime	10,000 hours
Warranty period	10 months

Remarks:

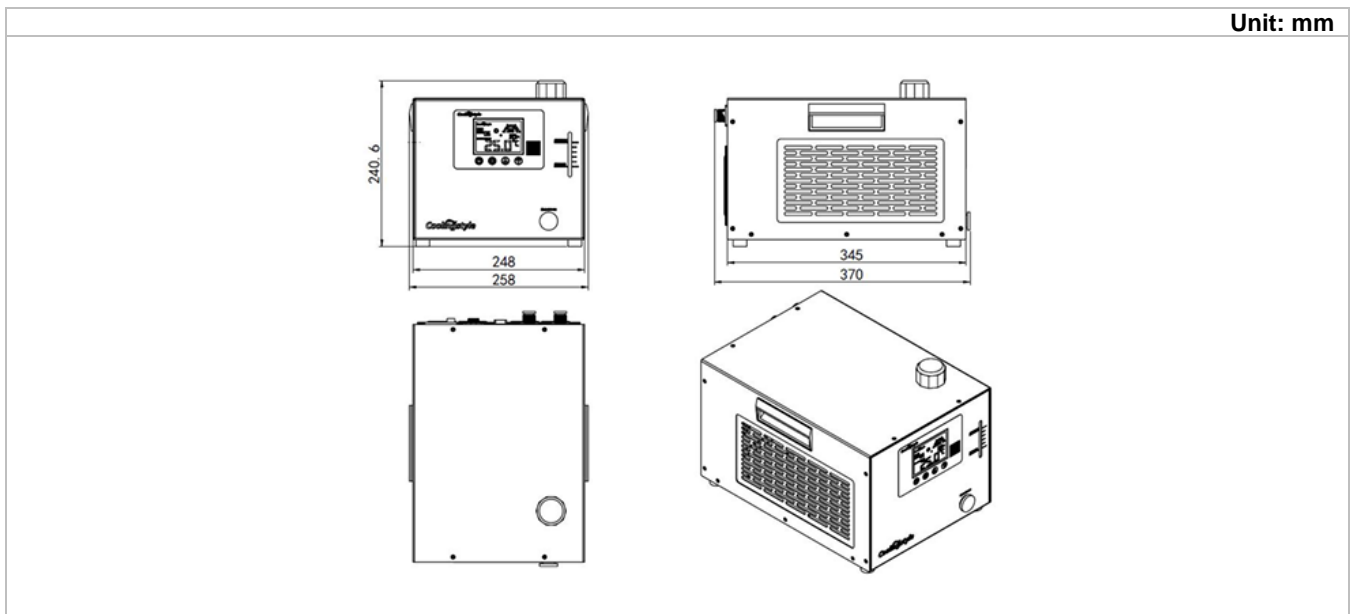
- Specifications of the Q-switched pulsed laser is based on the laser pulsed at the specified repetition rate. If the laser is run at a different repetition rate, the output characteristics may change.
- Specifications are subject to change without notice.

TWQN Series Laser Head Dimensions



Parameter	TWQN Series
Dimensions	420(L)x338(W)x136(H) mm ³
Weight	21 kg
Beam height from base plate	107 mm

Chiller Dimensions



Parameter	580Chiller
Dimensions	370(L)x258(W)x240.6(H) mm ³
Weight	8.3 kg

Ordering Information

For more information, please contact Lasermate directly at sales@lasermate.com.

Part Number Configuration TWQN[1][2][3]C				
TWQN = Laser Model Series	[1] = Wavelength	[2] = Output Power	[3] = Power Stability	[C] = Water Chiller
	7784= 770-840 nm	100= >100mW 200= >200mW 400= >400mW	A=<5% E=<3%	

Note: The above specifications are subject to change without notice.